Work Order ID 107978

October-07-13 9:04:49 AM

107978

Item ID: D3262-5
Revision ID:
Item Name: Cap

Accept *N900040100*

Setup Start *NS1*
Stop *NS2*

Start Date: 10/07/13 **Start Qty:** 4.00 *4*
Required Date: 10/07/13 **Req'd Qty:** 4.00 *4*
Reference:

Cust Item ID:
Customer:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** MCS **Date:** 13-10-08 **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D3262	E								
100		0.00							
100	BAND SAW								
Bandsaw	**Memo**	0.00							
Jeaspa Bandsaw	Cut blanks: 6.000" x 0.500" x 5.400" long Bar								
110		0.00							
110	HAAS CNC VERTICAL MACHINING #1								
HAAS 1	**Memo**	0.00							
HAAS CNC vertical machine #1	Machine as per dwg D3262 Machine as per Folio FA902 and Dwg D3262 FOLIO REV: AA DWG REV: E TAP USING JIG DT9636 Deburr								

DAS 13-10-18 x4

DAS 13-10-22 x4

PTO

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: [illegible] Date: 13/10/22

QA Closed: [illegible] Date: 13/10/30

Work Order: 187978

Part No. D3262-8

NCR No. 13-3183

DISPOSITION

Rework	
Scrap	
Use-as-is	X
Work Order Update	

AGAINST DEPARTMENT/PROCESS

Skid-tube		Crosstube		Water Jet	
Machining	X	Small Fab		Prod. Eng. Coor.	
Thermoforming		Finishing		Rec/Store/Packaging	
Large Fab		Composite		Supplier	

Engineering	
Quality	
Other	

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data		13 10 22	110	x1	used wrong endmill for Finishing pocket to size supposed to be have a .062" rad on inside edges operator used a 3/8. endmill with a .032" rad RC operator didn't verify RAD Before usi End mill	13.10.22	ACCEPTABLE DEVIATION.	13-10-22	DAS 16 9-89 13/10/22	DAS 16 9-89 13/10/22
Equip/Tooling										
Operator	X									
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

FAULT CATEGORY

Landing Gear

	Bending
	Centre Not Concentric to O/S
	Cracks
	Crushed/Crimped.
	Cuffs
	Heat Treat
	Inspection Strip in Tube
	Ripples in Bend
	Torque Waves in Extrusion
	Turning Sequence
	Wave/Twist in Tube

General

	Bend
	BOM/Route
	Broken/Damaged
	Burrs
	Contamination
	Countersink
	Cut Too Short
	Drill Holes
	Drawing
	Finish
	Folio

	Grain
	Hardware
	Inspection Incomplete
	Instructions Incomplete/Unclear
	Maintenance
	Mislabeled
	Misread
	Offset
	Out of Calibration
	Out of Sequence
	Outside Dimensions

	Ovalized
	Over/Under tolerance
	Part Incorrect
	Part Lost/Missing
	Part Moved
	Positioned Wrong
	Power Loss/Surge

	Pressure/Forced
	Temperature/Cure
	Weld
	Wrong Stock Pulled
X	Other

used endmill with wrong rad

Work Order ID 107978

October-07-13 9:04:49 AM

107978

Item ID: D3262-5 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Cap

Start Date: 10/07/13 **Start Qty:** 4.00 *4*
Required Date: 10/07/13 **Req'd Qty:** 4.00 *4*
Reference:

Cust Item ID:
Customer:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**
QC: **Date:** **SPC (Y/N):** **Date:**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC2- Inspect parts off machine FAI/FAIB	0.00			DAS 02 99	4	0	13-10-22	
120									
QC	Memo	0.00							
Quality Control									
130	QC8- Inspect parts - second check	0.00			DAS 44 9-89	4	0	13/10/23	
130									
QC	Memo	0.00							
Quality Control									
140	Identify as per dwg & Stock Location: WA003	0.00				4	0	13-10-24	AD
140									
Packaging	Memo	0.00							
Packaging									

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped.
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

Work Order ID 107978

October-07-13 9:04:49 AM

107978

Item ID: D3262-5 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Cap

Start Date: 10/07/13 **Start Qty:** 4.00 *4*

Required Date: 10/07/13 **Req'd Qty:** 4.00 *4*

Reference:

Cust Item ID:

Customer:

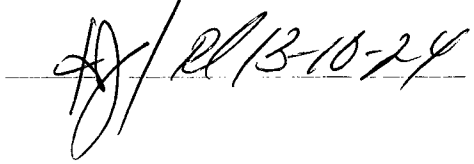
Run Start *NR1*

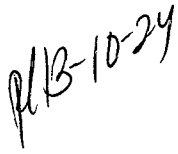
Stop *NR2*

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**

QC: **Date:** **SPC (Y/N):** **Date:**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC21- Final Inspection - Work Order Release	0.00							
150									
QC	**Memo**	0.00							
Quality Control									





DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

Picklist Print

October-07-13 9:04:49 AM

Work Order ID: 107978

Parent Item: D3262-5 **Start Date:** 10/07/13 **Required Date:** 10/07/13

Parent Item Name: Cap **Start Qty:** 4.00 **Required Qty:** 4.00

Comments: IPP REV:A NEW ISSUE 10-01-19 JLM VERIFIED BY:EC IPP Rev:B as per ECN10-571
DD 10.05.10 verified :EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B0.500X06.000 6061-T6 Bar .500 x 6.00		Purchased	No			100	f	54.8343	0.96	**4.0421052**			

BT 17-10-18

Location	Loc Qty	Loc Code
MAT005	54.8342632	
112567	0.8192632	
122521	18.015	X 1.621
m126647	36	

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
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- ☐ Drill Holes
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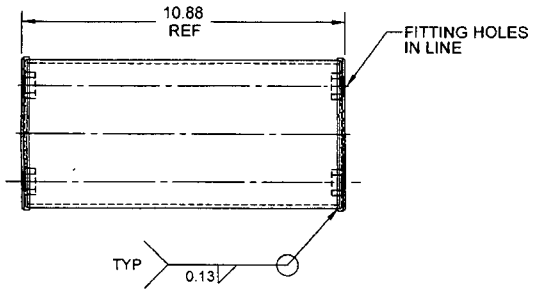
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

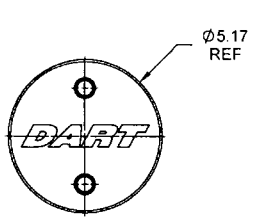
_____

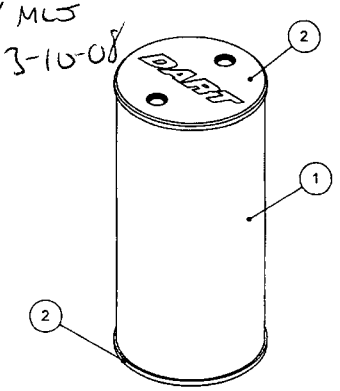
_____

_____

ITEM	QTY -041	P/N	DESCRIPTION
	X	D3262-041	CANISTER ASSEMBLY
1	1	D3262-1	TUBE
2	2	D3262-3	CAP







107978 MCS
13-10-08

RELEASED
2010 -05- 07

D3262-041 CANISTER ASSEMBLY

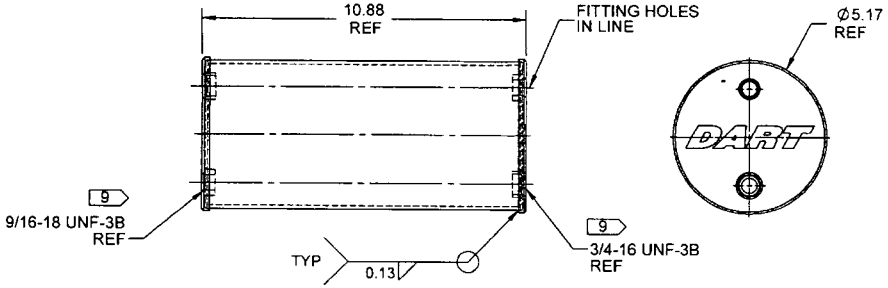
NOTES:
1) MATERIAL: N/A
2) FINISH: CHEMICAL CONVERSION COAT PER QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3262-041" AND B/N USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: 2.51 lbs
8) LIQUID PENETRANT INSPECT PER ASTM E1417 LEVEL 1 OR
PRESSURIZE TO 10 psi AND SUBMERGE UNDER WATER TO CHECK FOR LEAKS

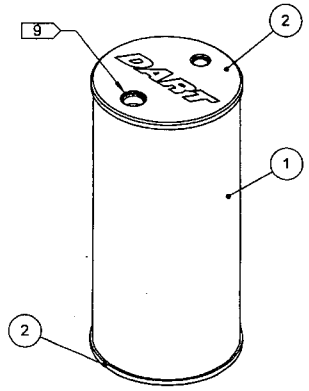
REV.	DESCRIPTION	BY	DATE
E	0.25 WAS 0.45 (ZNC7-4, C7-5); 0.13 WAS 0.33 (ZN B7-4, B7-5); ADD DIMENSION (ZN B1-4, D1-5, B1-5)	RF	10.05.03
D	ADD D3262-043/-5 (ZN B5-2; B5-5); REVISE DIMENSIONS TO EQUAL TOOL DIMENSIONS (ZN B2-4, C2-4) PER CAR 09-004	RF	09.12.30
C	Ø5.165 WAS Ø5.190	RF	06.08.31
B	ADD PRESSURE TESTING OPTION	MB	05.02.14
A	NEW ISSUE	RF	04.05.06

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D3262	REV. E
MFG. APPR.			SHEET 1 OF 5
APPROVED		TITLE FUEL PURGE CANISTER	SCALE NTS
DE APPR.			
DATE	10.05.03		

107978

ITEM	QTY -043	P/N	DESCRIPTION
	X	D3262-043	CANISTER ASSEMBLY
1	1	D3262-1	TUBE
2	2	D3262-5	CAP





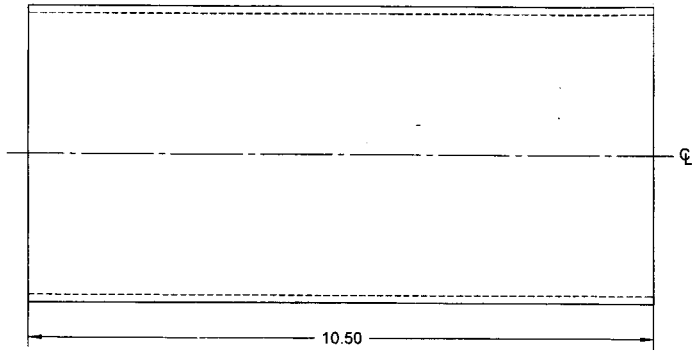
D3262-043 CANISTER ASSEMBLY

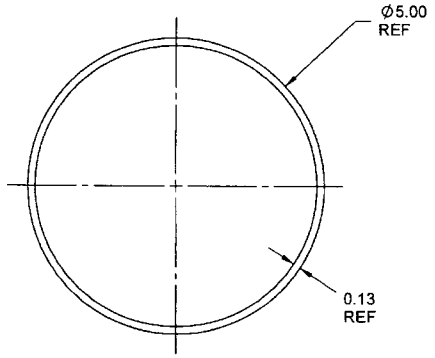
RELEASED
2010 -05- 07

NOTES:
1) MATERIAL: N/A
2) FINISH: CHEMICAL CONVERSION COAT PER QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3262-043" AND B/N USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: 2.50 lbs
8) LIQUID PENETRANT INSPECT PER ASTM E1417 LEVEL 1 OR
PRESSURIZE TO 10 psi AND SUBMERGE UNDER WATER TO CHECK FOR LEAKS
9) WELD CAPS WITH 3/4-16 TAP TOP HOLE IN LINE WITH 9/16-18 TAP BOTTOM HOLE

DESIGN	RF	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO. D3262 REV. E
MFG. APPR.		SHEET 2 OF 5
APPROVED		TITLE FUEL PURGE CANISTER SCALE NTS
DE APPR.		
DATE	10.05.03	

107978





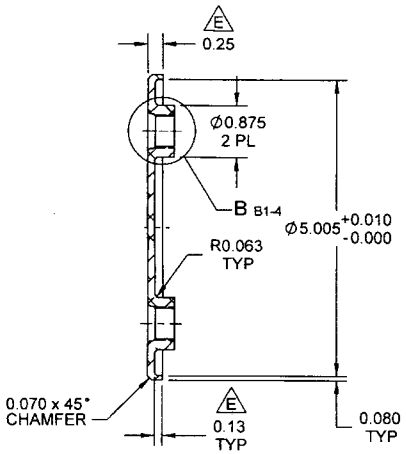
D3262-1 TUBE

RELEASED
2010 -05- 07

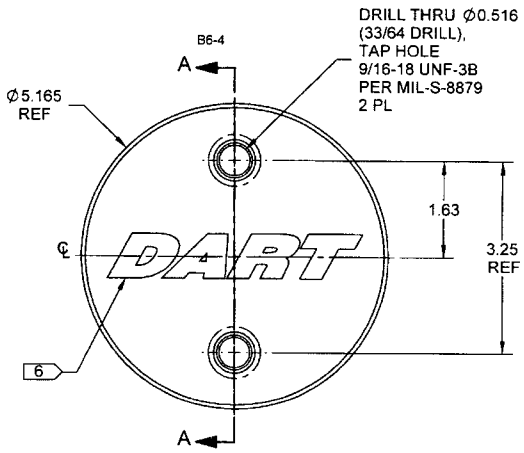
NOTES:
1) MATERIAL: 6061-T6 OR 6061-T62 ALUMINUM TUBING, 5.00 OD x 0.125 WALL
PER WW-T-700/6 OR AMS 4080 OR AMS 4082 OR QQ-A-200/8 OR QQ-A-225/8
REF. DART SPEC. M6061T6T5.000W.125
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 1.96 lbs
8) PART IS SYMMETRICAL ABOUT CENTERLINE

DESIGN	RF	**DART AEROSPACE LTD**	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3262	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		FUEL PURGE CANISTER	NTS
DATE	10.05.03		

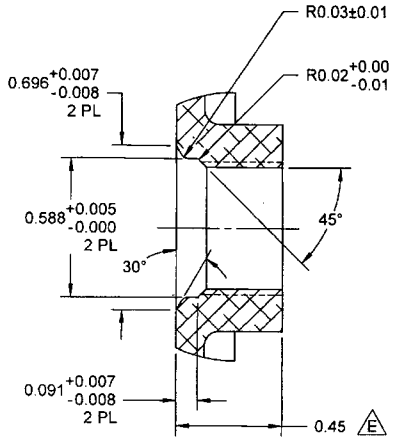
107978



SECTION A-A C5-4



D3262-3 CAP

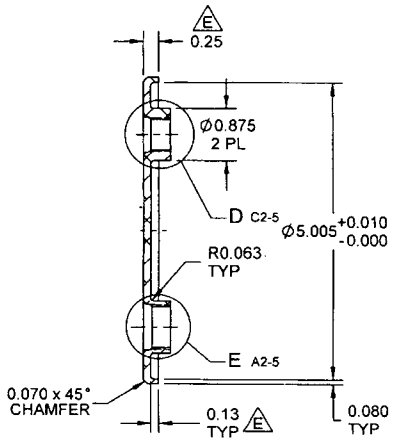


DETAIL B C7-4
SCALE 2X

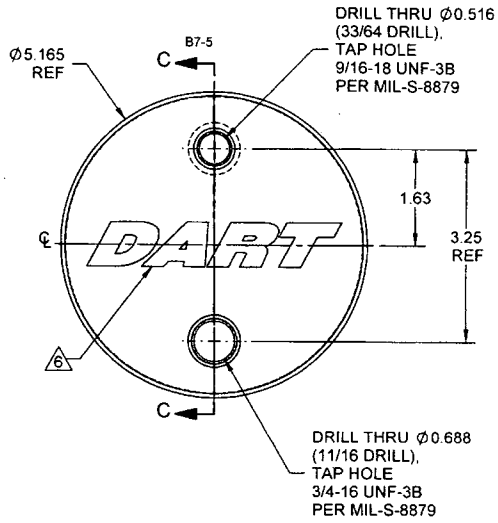
RELEASED
2010 -05- 07

NOTES:
1) MATERIAL: 6061-T6/T651 ALUMINUM BAR
PER QQ-A-200/8 OR QQ-A-225/8
REF. DART SPEC. M6061T6B
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: ENGRAVE 'DART' LOGO AS SHOWN USING 0.75 HIGH x 0.010 DEEP (MAX) LETTERS WITH TOOL RADIUS OF 0.25 MIN
7) WEIGHT: 0.28 lbs
8) PART IS SYMMETRICAL ABOUT CENTERLINE

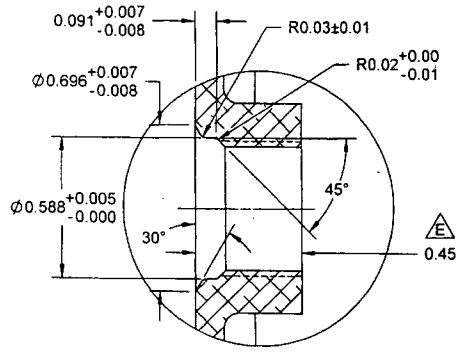
DESIGN	RF	**DART AEROSPACE LTD**	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D3262	REV. E
MFG. APPR.			SHEET 4 OF 5
APPROVED		TITLE FUEL PURGE CANISTER	SCALE NTS
DE APPR.			
DATE	10.05.03		



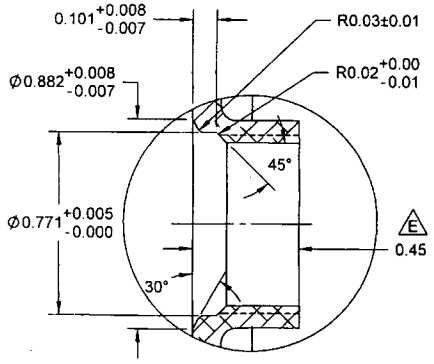
SECTION C-C D5-5



D3262-5 CAP



DETAIL D C7-5
SCALE 2X



DETAIL E B7-5
SCALE 2X

RELEASED
2010 -05- 07

NOTES:
1) MATERIAL: 6061-T6/T651 ALUMINUM BAR
PER QQ-A-200/8 OR QQ-A-225/8
REF. DART SPEC. M6061T6B
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: ENGRAVE 'DART' LOGO AS SHOWN USING 0.75 HIGH x 0.010 DEEP (MAX) LETTERS WITH TOOL RADIUS OF 0.25 MIN
7) WEIGHT: 0.27 lbs
8) PART IS SYMMETRICAL ABOUT CENTERLINE

DESIGN	RF	**DART AEROSPACE LTD**	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D3262	REV. E
MFG. APPR.			SHEET 5 OF 5
APPROVED		TITLE FUEL PURGE CANISTER	SCALE NTS
DE APPR.			
DATE	10:05.03		

DART AEROSPACE LTD	Work Order:	107978
Description: Cap	Part Number:	D3262-5
Inspection Dwg: D3262 **Rev:** E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.45	+/-0.030	.435	✓		vern	RT-4
0.25	+/-0.030	.261	✓			
Ø0.875	+/-0.010	.873	✓			
Ø5.005	+0.010/-0.000	5.005	✓			
R0.063	+/-0.010	0.063	✓			
0.080	+/-0.010	0.080	✓			
0.13	+/-0.030	0.130	✓			
0.070 x 45°	+/-0.010 x 0.5°	0.076	✓			
Ø5.165 Ref	+/-0.010	5.166	✓			
1.63	+/-0.030	1.630	✓			
3.25 Ref	+/-0.030	3.249	✓			
9/16-18 UNF-3B	N/A					
3/4-16 UNF-3B	N/A					
0.091	+0.007/-0.008	.090	✓			
R0.03	+/-0.010	.030	✓			
R0.02	+0.00/-0.01	.020	✓			
45°	+/-0.5°	45°	✓			
30°	+/-0.5°	30°				
Ø0.588	+0.005/-0.000	.590	✓			
Ø0.696	+0.007/-0.008	.690	✓			
0.101	+0.008/-0.007	0.101	✓			
R0.03	+/-0.010	.030	✓			
R0.02	+0.00/-0.01	.020	✓			
45°	+/-0.5°	45°	✓			
30°	+/-0.5°	30°	✓			
Ø0.771	+0.005/-0.000	.775	✓			
Ø0.882	+0.008/-0.007	.876	✓			

Measured by:	RT 10D 0.030	Audited by:	DAS 44 0.89	Preliminary Approval:	
Date:	13-10-22	Date:	13/10/23	Date:	

Rev	Date	Change	Revised by	Approved
A	10.06.07	New Issue	KJ	

.998 .26 .346 .606